

SECTION III—REMARKS

This Amendment is in response to the Office Action mailed April 30, 2003. Claims 1-16 are cancelled and new claims 17-38 are added. Claims 17-38 remain pending in the application. Applicants respectfully request reconsideration of the application and allowance of all pending claims in view of the above amendments and the following remarks.

Claim Objections

The Examiner objected to claims 1-16 because of various informalities in the claims. The Examiner's objections are rendered moot by the cancellation of claims 1-16. Applicant respectfully submits that new claims 17-38 overcome the Examiner's objections.

Rejections Under 35 U.S.C. § 112

The Examiner rejected claim 1-16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and claim the subject matter which the Applicant regards as the invention. Applicant respectfully submits that the Examiner's objections are rendered moot by the cancellation of claims 1-16.

Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 1, 3, 4, 6-8, 10, 12, 14, 15 and 16 as anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 5,832,148 to Yariv ("Yariv"). As to claims 1, 3, 4, 6-8, 10, 12, 14, 15 and 16, Applicants respectfully submit that the rejections are moot in view of the cancellation of these claims. As to new claims 17-38, Applicants respectfully traverse the Examiner's rejections. A claim is anticipated only if each and every element, as set forth in the claim, is found in a single prior-art reference. MPEP § 2131; *Verdegaal Bros. v. Union Oil of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). As further explained below, Yariv cannot anticipate the new claims because it does not disclose every element and limitation recited therein.

Yariv discloses an electrically-controlled wavelength multiplexing waveguide filter. In Figure 2, Yariv discloses that the waveguide filter comprises a waveguide 206 including a plurality of electrically-controlled light modulators 207, 208 and 209 deployed in series along the optical axis of the waveguide 206.

New claim 17 recites an apparatus including, among other things, a diffractive grating comprising “a plurality of sub-gratings, each sub-grating having a pair of lateral edges and a periodic array of diffraction elements,” wherein the sub-gratings “are positioned adjacent to each other with their lateral edges abutting or overlapping.” Yariv does not disclose, teach or suggest a combination including such limitations. Instead, Yariv discloses that light modulators 207, 208 and 209 are deployed in series along the length of the waveguide 206. In other words, the modulators are at different longitudinal positions. Since they are at different longitudinal positions, the modulators together cannot comprise a diffractive grating comprising “a plurality of sub-gratings, each sub-grating having a pair of lateral edges and a periodic array of diffraction elements,” wherein the sub-gratings “are positioned adjacent to each other with their lateral edges abutting or overlapping.” Applicants therefore submit that claim 17 is not anticipated by Yariv and respectfully request allowance of the claim.

Regarding claims 18-26, if an independent claim is allowable, then any claim depending therefrom is also allowable. *See* MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 17 is in condition for allowance. Applicants therefore respectfully submit that claims 18-26 are allowable by virtue of their dependence on allowable claim 17 and by virtue of the features recited therein. Applicants therefore respectfully request allowance of these claims.

New claim 27 recites an optical device including, among other things, “a plurality of sub-gratings, each sub-grating having a pair of lateral edges,” wherein “the sub-gratings are positioned adjacent to each other with their lateral edges abutting or overlapping to form a segmented grating.” As discussed above in connection with claim 17, Yariv does not disclose, teach or suggest a combination including these limitations. Applicants therefore submit that claim 27 is not anticipated by Yariv and respectfully request allowance of the claim.

Regarding claims 28-30, if an independent claim is allowable, then any claim depending therefrom is also allowable. *See* MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 27 is in condition for allowance. Applicants therefore respectfully submit that claims 28-30 are allowable by virtue of their dependence on allowable claim 27 and by virtue of the features recited therein. Applicants therefore respectfully request allowance of these claims.

New claim 31 recites an optical communication system including, among other things, a compound grating that includes at least a first segmented grating, the first segmented grating comprising "a plurality of sub-gratings, each sub-grating having a pair of lateral edges and a periodic array of diffraction elements," wherein "the sub-gratings are positioned adjacent to each other with their lateral edges abutting or overlapping." As discussed above in connection with claim 17, Yariv does not disclose, teach or suggest a combination including these limitations. Applicants therefore submit that claim 31 is not anticipated by Yariv and respectfully request allowance of the claim.

Regarding claims 32-35, if an independent claim is allowable, then any claim depending therefrom is also allowable. *See* MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 31 is in condition for allowance. Applicants therefore respectfully submit that claims 32-35 are allowable by virtue of their dependence on allowable claim 31 and by virtue of the features recited therein. Applicants therefore respectfully request allowance of these claims.

New claim 36 recites a method including, among other things, providing a diffractive grating, the diffractive grating comprising "a plurality of sub-gratings, each sub-grating having a pair of lateral edges and a periodic array of diffraction elements," wherein "the sub-gratings are positioned adjacent to each other with their lateral edges abutting or overlapping." As discussed above in connection with claim 17, Yariv does not disclose, teach or suggest a combination including these limitations. Applicants therefore submit that claim 36 is not anticipated by Yariv and respectfully request allowance of the claim.

Regarding claims 37-38, if an independent claim is allowable, then any claim depending therefrom is also allowable. *See* MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 36 is in condition for allowance. Applicants therefore respectfully submit that claims 37-38 are allowable by virtue of their dependence on allowable claim 36 and by virtue of the features recited therein. Applicants therefore respectfully request allowance of these claims.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 2, 9, 11 and 13 under 35 U.S.C § 103(a) as obvious in view of, and therefore unpatentable over, Yariv. The Examiner also rejected claim 5 under 35 U.S.C.

§ 103(a) as obvious in view of, and therefore unpatentable over, Yariv in view of U.S. Patent No. 5,793,907 to Jalali et al ("Jalali"). Applicants respectfully submit that the Examiner's rejections are moot in view of the cancellation of these claims.

Double Patenting Rejection

The Examiner rejected claims 1-4 and 6-16 under the judicially-created doctrine of obviousness-type double patenting over claims 1-2 of U.S. Patent No. 6,314,220 to Mossberg et al ("Mossberg"). According to the Examiner, although the claims are not identical, they are not patentably distinct from each other because they both claim a diffractive structure having a plurality of subgratings. Applicants respectfully submit that the Examiner's rejections are moot in view of the cancellation of these claims.

Information Disclosure Statement (IDS)

Applicants have submitted herewith an Information Disclosure Statement (IDS), along with a form PTO-1449 listing various references. Copies of the listed references are also enclosed. All references listed and submitted in the IDS and PTO-1449 were previously submitted in two IDSs. Both previously-submitted IDSs appear to have been lost at the U.S. Patent Office, since they were not considered and the Examiner indicated that they were not even put in the record for consideration.

Revocation and Substitute Power of Attorney

On [date] Applicants submitted a Revocation and Substitute Power of Attorney making the undersigned attorney and others comprising the firm of Blakely, Sokoloff, Taylor and Zafman LLP, the attorneys of record. A discussion between Applicants' attorney and the Examiner revealed that, like other papers filed in connection with this application, the revocation appears to have been lost or misplaced by the Patent Office.

Applicants have submitted herewith a copy of the revocation, along with a certification under 37 C.F.R. § 3.73(b) and proof that the revocation was received by the U.S. Patent Office. Applicants respectfully request that the Examiner enter the revocation so that the change in attorney of record will be effective, and respectfully request that the Examiner change the correspondence address for this application so that future correspondence will go to the proper place.

Conclusion

Overall, none of the references singly or in any motivated combination disclose, teach, or suggest what is recited in the independent claims. Thus, given the above amendments and accompanying remarks, all independent claims are now in condition for allowance. The dependent claims that depend directly or indirectly on these independent claims are likewise allowable based on at least the same reasons and based on the recitations contained in each dependent claim.

If the undersigned attorney has overlooked a teaching in any of the cited references that is relevant to allowance of the claims, the Examiner is requested to specifically point out where such teaching may be found. Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 292-8600.

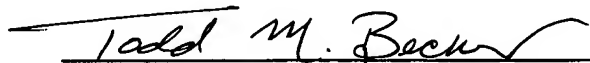
Charge Deposit Account

Please charge our Deposit Account No. 02-2666 for any additional fee(s) that may be due in this matter, and please credit the same deposit account for any overpayment.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 9-2-03



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Enclosures: Postcard
Petition for one-month extension of reply period
Information Disclosure Statement (IDS) and PTO-1449
Copies of Revocation and Substitute POA, Certificate Under 3.73(b), postcard
Fees for petition, IDS and excess claims